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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/527,434	03/10/2005	Franz Atzinger	2002P11067WOUS	5412

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Siemens Corporation
Intellectual Property Department
170 Wood Avenue South
Iselin, NJ 08830

EXAMINER

SUCHECKI, KRYSZYNA

ART UNIT	PAPER NUMBER
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2882

DATE MAILED: 12/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/527,434

Applicant(s)

ATZINGER, ET AL

Examiner

Krystyna Suchecki

Art Unit

2882

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 03/10/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

Claim 26 is objected to because of the following informalities: line 2 should refer to a "patient". Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 13-16, 18, 20-23 and 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mazess (US 6,081,582).

Regarding claims 13- 16, 18 and 20-21 Mazess teaches a medical imaging device, comprising: a radiation source (26); a digital radiation detector (30) for recording images, the radiation source and the digital radiation detector configured to be moved vertically relative to a patient (34) in a standing position (Figure 9); a control device (51) adapted to move the radiation source and the digital radiation detector to a plurality of successive imaging positions for recording an image of an examination area exceeding an elevation level of an active surface area of the digital radiation detector (Figure 2); an image processing device for generating a combined image showing the whole examination area (Column 7, lines 59-61), wherein the plurality of successive imaging positions are calculated by the control device based on an elevation level of the examination area and the elevation level of the active surface area of the digital

radiation detector (Figure 2), an image is recorded the imaging position, the images in their entirety covering the whole examination area, and the image processing device is configured to generate an image using an image recorded at the imaging position (Column 7, lines 59-61), wherein the control device is adapted to move the radiation source and the digital radiation detector synchronously (Column 5, lines 2-5), wherein the control device is further adapted to move the radiation source and the digital radiation detector to the imaging positions successively using an automation program (Column 6, lines 23-37), wherein the images recorded at adjacent imaging positions overlap in an overlap area (Column 6, lines 38-54), wherein the imaging processing device is further adapted to arrange the images recorded at the adjacent imaging positions relative to the combined image using the overlap area (Column 7, lines 38-57), wherein the combined image is displayed (Column 7, lines 59-61), wherein the displayed image is scaled down (Column 7, lines 63- Column 8, lines 4).

Regarding Claims 26 and 27, Mazess teaches a platform for accommodating a patient, the platform having a handhold safeguard device for securing the patient's standing position (21)

Regarding Claims 22 and 23, Mazess teaches displaying a combined image as above.

However, Mazess fails to teach specifically that a combined image is displayed on a monitor using a display format corresponding to a recording format of the combined image, the combined image movable on the monitor using a scrolling

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mechanism, or wherein the combined image is displayed on a monitor using a display format exceeding the original size of the examination area, the combined image movable on the monitor using a scrolling mechanism.

However, the recording and displaying of images are known expedients for identifying regions of interest. By using a display format corresponding to a recording format, less formatting of the collected imaging data needs to occur. By not re-formatting the recorded data, it can be displayed faster. Using a display format exceeding the original size of an examination area is useful for zooming in on an area of interest, thereby magnifying particular areas of interest and making it easier to find. Both methods could benefit from the use of a scrolling mechanism, so as to isolate an area of interest of the screen while eliminating other areas. In this manner, the scrolling acts as a means to highlight an area of interest, by bringing that area in to view, while effectively pushing uninteresting area out of the view area by scrolling.

Therefor, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the formatting means as set forth above for fast display of images and for zooming. Including a scrolling mechanism would allow highlighting an area of interest by bringing an area into view, while effectively excluding an uninteresting area.

Regarding Claim 28, Mazess teaches a detector and a platform as above. The detector is attached to the platform by C-arm means (15).

Mazess fails to teach a plate permeable for radiation emitted by the radiation source, the plate arranged on the platform and facing the digital radiation detector.

However, protective, radiation permeable plates are well known in the art for protecting a radiation detector against patient contact. The delicate nature of crystals within the detector requires protection at least in the form of a plate facing the digital radiation detector.

Therefor, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a plate facing the digital radiation detector of Mazess, since the crystal nature of the detector is delicate and requires covering. The plate could be attached to the platform of Mazess, so that the detector can be removed if it wears out and needs replacing. The plate attached to the platform would allow a patient contact surface to remain stable throughout detector changes.

Claims 17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mazessr in view of Bisek (US Re. 36,162).

Regarding claims 17 and 19, Mazess teaches an imaging device as above having a movable detector.

Mazess fails to teach images recorded at adjacent imaging positions as not overlapping and wherein the imaging processing device is further adapted to arrange the images recorded at the adjacent imaging positions relative to the combined image using a border area of the images.

Bisek teaches non-overlapping imaging of a patient (Figure 7). A detector is moved until all areas of interest are imaged. The images are arranged based upon a border set by a displacement from a focal spot to that adjacent imaging positions are arranged relatively using a border area of the images (Column 8, lines 3-20). The non-overlapping imaging is an alternative to overlapping imaging (Figure 10). The non-overlapping prevents redundant data and is a way to prevent image blurs (Column 8, lines 40-52).

Therefor, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the non-overlapping detection of Bisek in the system of Mazess so as to prevent redundant data and prevent image blurs (Bisek, Column 8, lines 40-52).

Claims 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mazess in view of Smith (US 6,851,851).

Regarding claims 24 and 25, Mazess teaches a radiation source and digital detector as above which are arranged on floor-mounted supports (the columns of Figure 9).

Mazess fails to teach adjustable, telescopic supports for the source and detector.

Smith teaches floor-mounted supports for a radiation source (Figure 73) and a digital detector (Figure 28) wherein the supports are telescopic columns. The columns allow greater positioning versatility.

Therefor, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use telescoping supports of Smith in the system of Mazess for the benefit of allowing positioning versatility. Such telescoping columns would allow for quick and comfortable accommodation of patients of differing heights.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krystyna Suchecki whose telephone number is (571) 272-2495. The examiner can normally be reached on M-F, 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Glick can be reached on (571) 272-2490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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Craig E. Church
Primary Examiner